AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1-20. (cancelled).

21. (previously presented) An abnormal pattern candidate detection processing method, comprising the steps of:

i) detecting an abnormal pattern candidate, which is embedded in a medical image, in accordance with a medical image signal representing a medical image, and

ii) outputting at least information for specifying the detected abnormal pattern candidate,

wherein the method further comprises the steps of:

a) calculating a degree of certainty about malignancy, which represents a level of possibility of a pattern being a malignant pattern, with respect to a predetermined region in the medical image, which has been set for each of pixels in the medical image, as the degree of certainty about malignancy corresponding to each of the pixels in the medical image, the calculation being made in accordance with an index value representing a feature of a pattern embedded in the predetermined region and in accordance with a correlation between the index value and possibility of a pattern being a malignant pattern, which has been obtained from clinical results, and

b) forming a distribution image signal representing a distribution image, which represents a distribution of the degrees of certainty about malignancy in the

medical image, in accordance with the thus calculated degrees of certainty about malignancy, each of which corresponds to one of the pixels, and

the step of outputting at least the information for specifying the detected abnormal pattern candidate is a step of further outputting the distribution image in accordance with the thus formed distribution image signal.

22. (original) A method as defined in Claim 21 wherein the medical image is a mammogram.

23. (previously presented) An abnormal pattern candidate detection processing system, comprising:

i) abnormal pattern candidate detecting means for detecting an abnormal pattern candidate, which is embedded in a medical image, in accordance with a medical image signal representing a medical image, and

ii) image output means for outputting at least information for specifying the detected abnormal pattern candidate,

wherein the system further comprises:

a) malignancy certainty degree calculating means for calculating a degree of certainty about malignancy, which represents a level of possibility of a pattern being a malignant pattern, with respect to a predetermined region in the medical image, which has been set for each of pixels in the medical image, as the degree of certainty about malignancy corresponding to each of the pixels in the medical image, the calculation being made in accordance with an index value representing a feature of a pattern embedded in the

predetermined region and in accordance with a correlation between the index value and possibility of a pattern being a malignant pattern, which has been obtained from clinical results, and

b) distribution image signal forming means for forming a distribution image signal representing a distribution image, which represents a distribution of the degrees of certainty about malignancy in the medical image, in accordance with the thus calculated degrees of certainty about malignancy, each of which corresponds to one of the pixels, and

the image output means further outputs the distribution image in accordance with the distribution image signal, which has been formed by the distribution image signal forming means.

24. (original) A system as defined in Claim 23 wherein the medical image is a mammogram.

25-30. (cancelled).